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**Date:** June 6, 2008**TO:** Marina Lee – United States Patent and Trademark Office**FAX NO.:** 571-270-2648**FROM:** Evan Perry

In re patent application of:

Applicant(s): Anson Horton et al.

Serial No: 10/809,147

Filing Date: March 25, 2004

Examiner: Marina Lee

Art Unit: 2192

Title: PROXY OBJECTS FOR DISPLAY

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**TOTAL NUMBER OF PAGES (INCLUDING THIS PAGE): 8**

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 PTOL-413A (09-04)  
 Approved for use through 07/31/2006. OMB 0651-0031  
 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

### Applicant Initiated Interview Request Form

Application No.: 10/809,147 First Named Applicant: Anson Horton, et al.  
 Examiner: Marina Lee Art Unit: 2192 Status of Application: Pending  
 (571)270-1648

**Tentative Participants:**

(1) Evan Perry (2) Marina Lee  
 (3) (4)

Proposed Date of Interview: TBD Proposed Time: TBD (AM/PM)

**Type of Interview Requested:**

(1) ☒ Telephonic (2) ☐ Personal (3) ☐ Video Conference

Exhibit To Be Shown or Demonstrated: ☐ YES ☒ NO

If yes, provide brief description: \_\_\_\_\_

### Issues To Be Discussed

Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior Art	Discussed	Agreed	Not Agreed
(1) 102	1,27	Dandoy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) 103	21	Dandoy, Bates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Continuation Sheet Attached					

**Brief Description of Arguments to be Presented:**

Please see attached agenda.

An interview was conducted on the above-identified application on \_\_\_\_\_.

**NOTE:** This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP § 713.01).

This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.

\_\_\_\_\_  
 Applicant/Applicant's Representative Signature

Evan Perry

\_\_\_\_\_  
 Typed/Printed Name of Applicant or Representative

62190

\_\_\_\_\_  
 Registration Number, if applicable

\_\_\_\_\_  
 Examiner/SPE Signature

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

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Dear Examiner Lee:

We are requesting an interview for the above captioned application. The following agenda is provided to indicate the proposed topics of discussion.

- I. Discussion of Rejection of Claims under 35 U.S.C. §102(e)
  - A. Discuss deficiencies of the cited reference vis a vis the independent claims
    1. Dandoy relates to a user interface debugger. Dandoy discloses a debug agent that is combined with a software application.
    2. The claims recite a display proxy that is a private nested class of an object wherein the object is the focus of a debugger.
    3. In the cited reference, the agent is associated with the entire application. In the claims, the display proxy is associated solely with the object and not the entire application.
- II. Discussion of Rejection of Claims under 35 U.S.C. §103(a)
  - A. Discuss deficiencies of the cited reference vis a vis the independent claims
    1. Bates *et al.* relates to debugging software code wherein the debugger includes additional descriptive material associated with variables beyond the values stored by the variables.
    2. The claims recite a display proxy that generates debug information related to an object. The display proxy is examined by a debugger in place of the object. Bates *et al.* examines the variables themselves but includes additional information.
    3. Dandoy and Bates *et al.* do not teach or suggest a display proxy as a private nested class.

Attached, please find proposed claim amendments with respect to the above-referenced matter. Thank you for your time and consideration.

Best regards,

-Evan

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**PROPOSED AMENDMENTS**

1. (Currently amended) A computer-implemented attributed debugging system comprising:
  - a debugger that facilitates debugging of a computer software application;
  - an expression evaluator associated with the debugger that determines details of an object of the computer software application that is a subject of the debugger, the expressions evaluator determines details of the object based upon a display proxy ~~associated with~~ implemented as a private nested class of the object, the display proxy provides relevant features of the object and conceals implementation specifics of the object; and
  - a variable display component that presents the determined details of the object to a developer.
2. (Previously Presented) The system of claim 1, the expression evaluator evaluates an expression associated with the object to determine the details, the expression is implemented in a particular programming language.
3. (Previously Presented) The system of claim 2, the programming language comprising at least one of C#, J# or Visual Basic.Net.
4. (Previously Presented) The system of claim 2, further comprising a plurality of expression evaluators, wherein each expression evaluator is associated with a different programming language.
5. (Previously Presented) The system of claim 1, the object comprises a class that includes at least one of a property or a method.
6. (Previously Presented) The system of claim 1, the expression evaluator creates an instance of the display proxy associated with the object of the computer software application.

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7. (Cancelled)
8. (Currently amended) The system of claim [[7]] 8, the display proxy has access to private implementation details of the object.
9. (Previously Presented) The system of claim 1, further comprising an attribute cache directory that stores an attribute associated with the display proxy, the expression evaluator employs the stored attribute to determine the details of the object.
10. (Previously Presented) The system of claim 1, further comprising an editing component that facilitates modifying a value associated with the object.
11. (Previously Presented) The system of claim 1, the variable display employs at least one attribute associated with the object that provides a format to display the determined details of an object.
12. (Previously Presented) The system of claim 11, the attribute specifies the property is displayed.
13. (Previously Presented) The system of claim 12, the attribute employing an enumeration to specify the format of the display.
14. (Previously Presented) The system of claim 13, the enumeration includes one enumeration value that indicates the property should not be displayed to the developer.
15. (Previously Presented) The system of claim 13, the enumeration includes one enumeration value that indicates a hierarchical property is expanded by default.
16. (Previously Presented) The system of claim 13, the enumeration includes one enumeration value that indicates a hierarchical property is not expanded by default.

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17. (Previously Presented) The system of claim 13, the enumeration includes one enumeration value that indicates a hierarchical property itself is not displayed and members of the hierarchical property are displayed.
18. (Previously Presented) The system of claim 11, the attribute specifies what is displayed for a class.
19. (Previously Presented) The system of claim 18, the attribute includes an argument that comprises a string that is displayed in a value column for an instance of the class.
20. (Previously Presented) The system of claim 18, the argument is associated with a property of the class.
21. (Currently amended) A method facilitating attributed debugging comprising:  
receiving a request to examine details of one or more properties of an object in a computer software application being debugged;  
determining whether a display proxy attribute exists for the object, the display proxy is implemented as a private nested class of the object and provides relevant properties regarding a state of the object and conceals properties related to implementation of the object;  
creating a display proxy for the object in accordance with the display proxy attribute; and  
examining the display proxy to determine debug information related to the object.
22. (Previously Presented) The method of claim 21 further comprising providing the debug information determined by the display proxy to a developer in response to the request to examine the object.
23. (Original) A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 21.

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24-25. (Cancelled)

26. (Currently amended) An attributed debugging system comprising:

means for receiving a request to debug an object in a computer software application;

means for determining whether a display proxy attribute exists in association with the object, the display proxy is implemented as a private nested class of the object and provides relevant properties regarding a state of the object and conceals properties related to implementation of the object;

means for creating an instance of the display proxy;

means for examining the display proxy, means for examining the display proxy comprise means for obtaining values of the provided relevant properties; and

means for providing debug information in response to the request to debug the object, the debug information is based at least in part on the display proxy and includes at least the obtained values of the provided relevant properties.

27. (Previously Presented) A computer-implemented attributed debugging system, comprising:

a debugger that facilitates debugging a computer software application;

an expression evaluator associated with the debugger that examines at least one object of the computer software application, the expression evaluator determines debug information comprising states of the at least one object, the states include values for at least one property of the at least one object,

the expression evaluator inspects the at least one object to verify if each of the at least one object includes a display proxy that is a private nested class of the object, the display proxy provides relevant properties of an associated object and conceals properties related to implementation of the object, the expression evaluator examines the display proxy to determine debug information that includes values for the at relevant properties of the at least one object;

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an attribute cache directory that retains instances of one or more display proxies, the expression evaluator queries the attribute cache directory for instances of display proxies associated with the at least one object, the expression evaluator creates an instance if not retained in the attribute cache directory; and

a variable display component that presents the debug information to a developer, the debug information includes values of relevant properties of the at least one object determined from examination of display proxies of the at least one object.